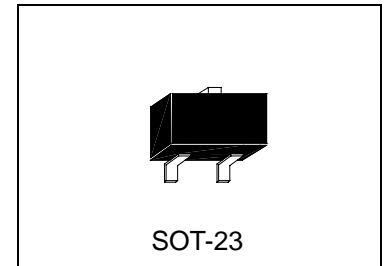




**HMBZ5221B**  
thru  
**HMBZ5257B** ZENER DIODES



**Thermal Characteristics**

Characteristics	Symbol	Max	Unit
Total Device Dissipation FR-5 Board TA=25°C, Derate above 25°C	PD	225 1.8	mW mW/°C
Total Device Dissipation Alumina Substrate**TA=25°C, Derate above 25°C	PD	300 2.4	mW mW/°C
Thermal Resistance Junction to Ambient	RθJA	417	°C/W
Junction and Storage Temperature	Tj, Tstg	-55 to +150	°C

\*FR-5 - 1.0x0.75x0.062 in. \*\*Alumina - 0.4x0.3x0.024 in. 99.5% alumina.

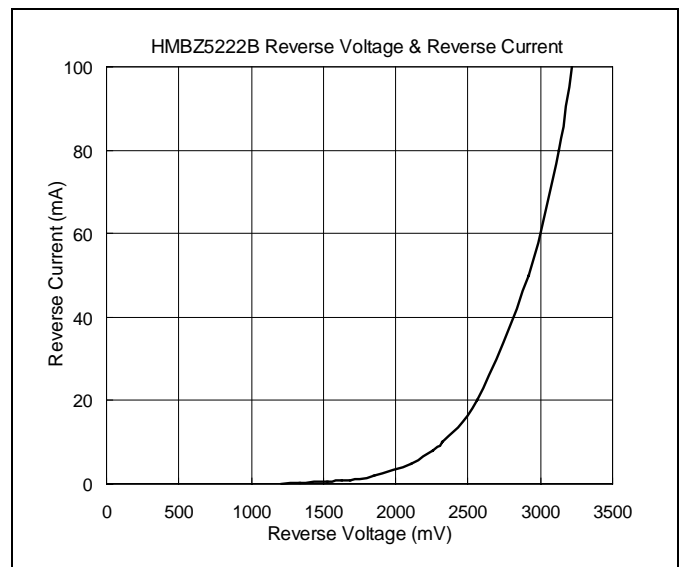
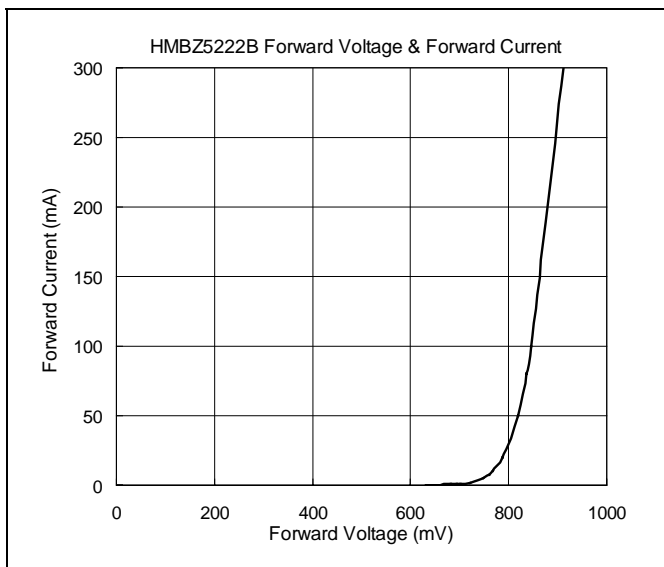
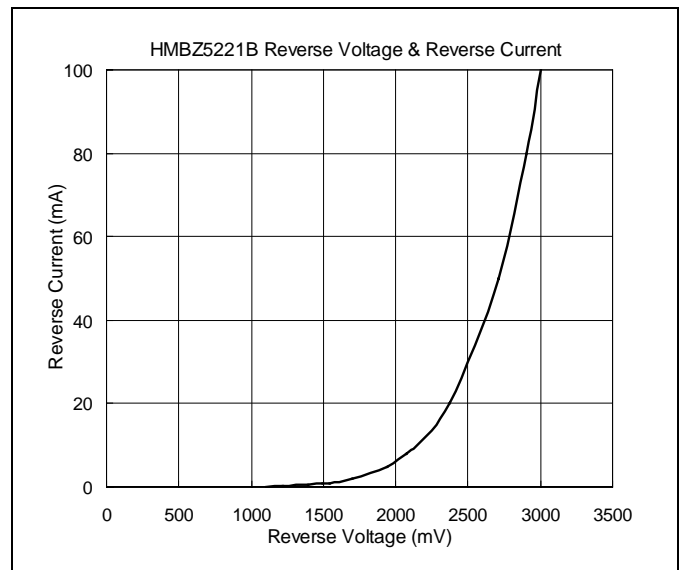
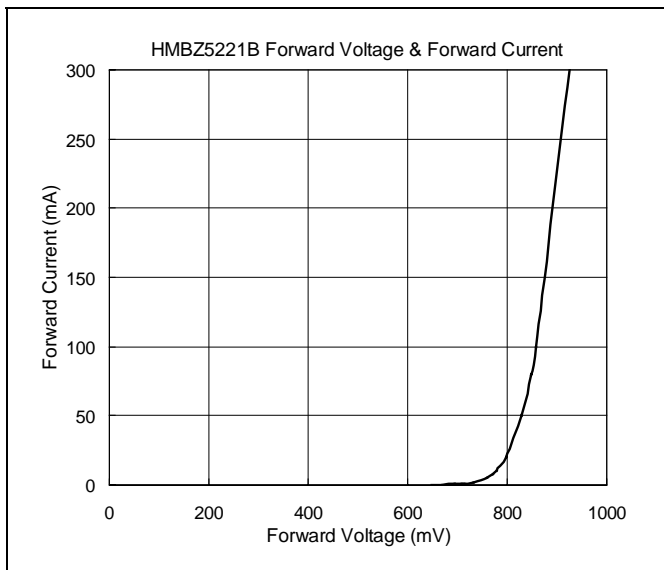
**Electrical Characteristic** (VF=0.9V Max @IF=10mA for all types.)

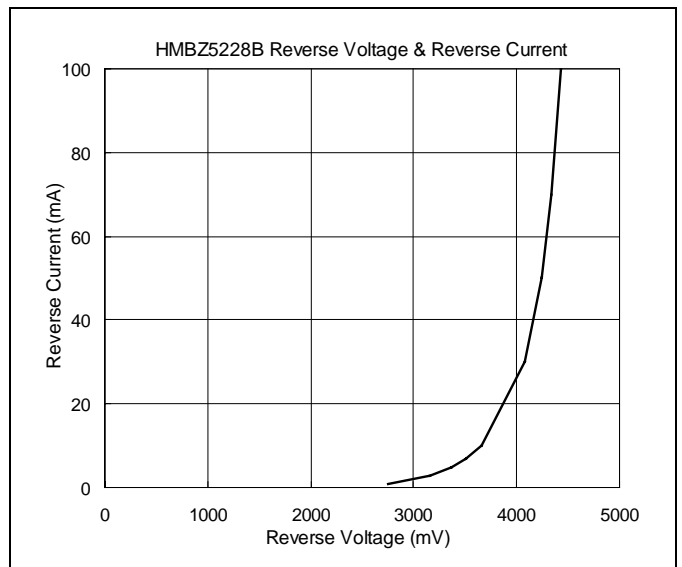
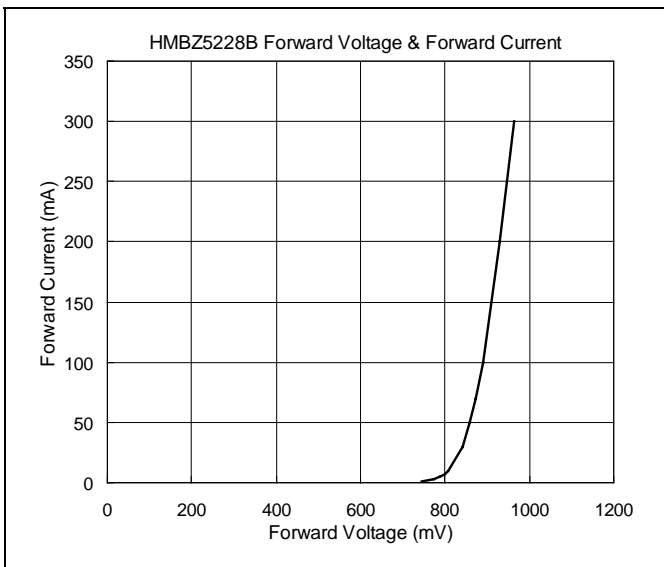
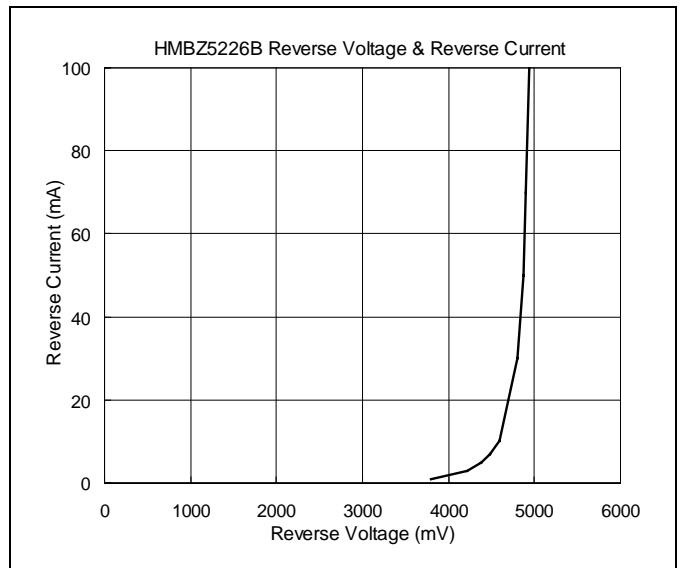
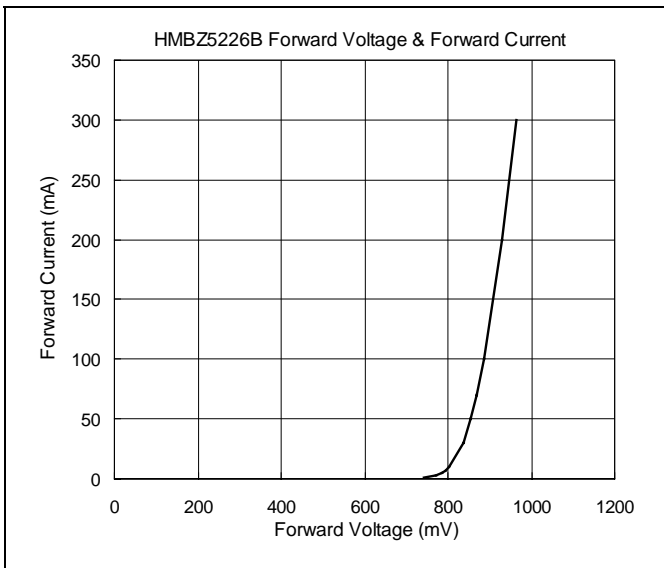
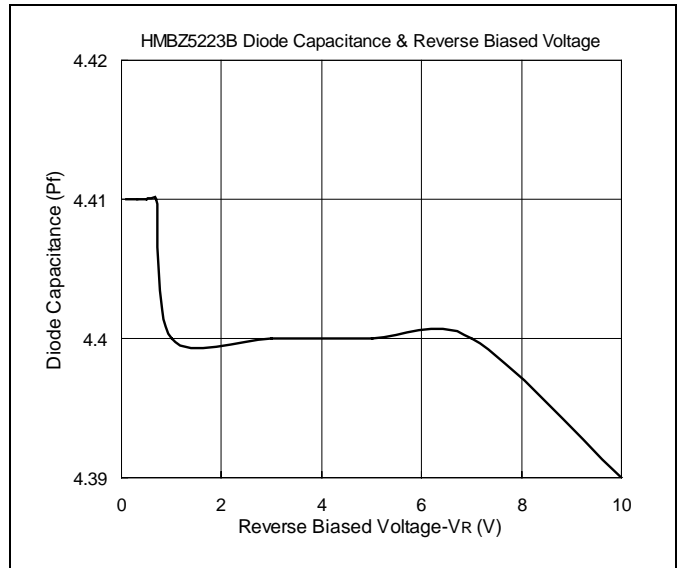
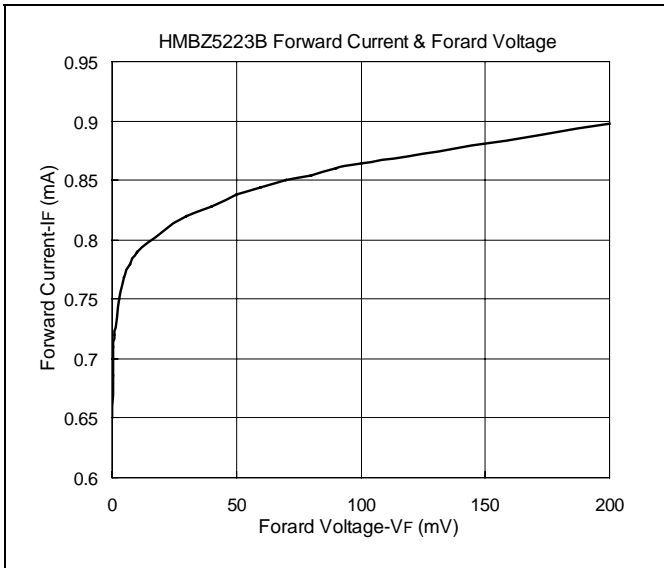
Device	Marking Code	Test Current IZT(mA)	Zener Voltage VZ(V)	ZZK IZ=0.25mA ΩMax	ZZT IZ=IZT ΩMax	Max. Reverse Current IR(μA) @VR(V)	
HMBZ52221B	18A	20	2.4 ±5%	1200	30	100	1.0
HMBZ5222B	18B	20	2.5 ±5%	1250	30	100	1.0
HMBZ5223B	18C	20	2.7 ±5%	1300	30	75	1.0
HMBZ5225B	18E	20	3.0 ±5%	1600	29	50	1.0
HMBZ5226B	8A	20	3.3 ±5%	1600	28	25	1.0
HMBZ5227B	8B	20	3.6 ±5%	1700	24	15	1.0
HMBZ5228B	8C	20	3.9 ±5%	1900	23	10	1.0
HMBZ5229B	8D	20	4.3 ±5%	2000	22	5.0	1.0
HMBZ5230B	8E	20	4.7 ±5%	1900	19	5.0	2.0
HMBZ5231B	8F	20	5.1 ±5%	1600	17	5.0	2.0
HMBZ5232B	8G	20	5.6 ±5%	1600	11	5.0	3.0
HMBZ5233B	8H	20	6.0 ±5%	1600	7.0	5.0	3.5
HMBZ5234B	8J	20	6.2 ±5%	1000	7.0	5.0	4.0
HMBZ5235B	8K	20	6.8 ±5%	750	5.0	3.0	5.0
HMBZ5236B	8L	20	7.5 ±5%	500	6.0	3.0	6.0
HMBZ5237B	8M	20	8.2 ±5%	500	8.0	3.0	6.5
HMBZ5238B	8N	20	8.7 ±5%	600	8.0	3.0	6.5
HMBZ5239B	8P	20	9.1 ±5%	600	10	3.0	7.0
HMBZ5240B	8Q	20	10 ±5%	600	17	3.0	8.0
HMBZ5241B	8R	20	11 ±5%	600	22	2.0	8.4
HMBZ5242B	8S	20	12 ±5%	600	30	1.0	9.1
HMBZ5243B	8T	9.5	13 ±5%	600	13	0.5	9.9
HMBZ5244B	8U	9.0	14 ±5%	600	15	0.1	10

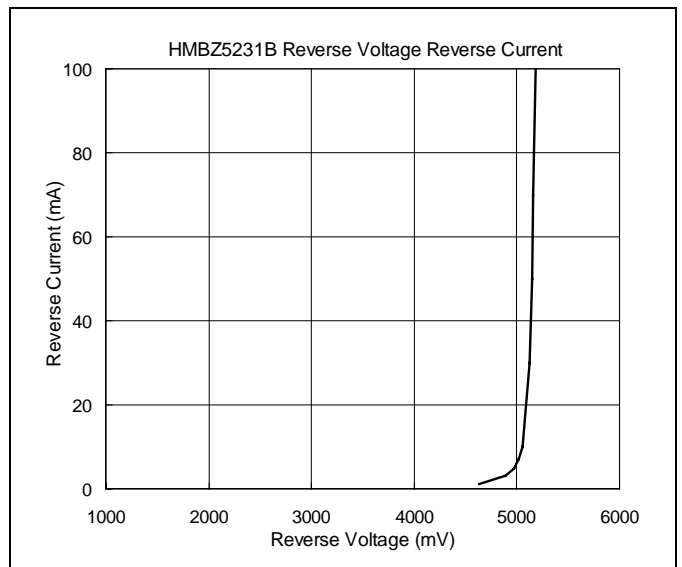
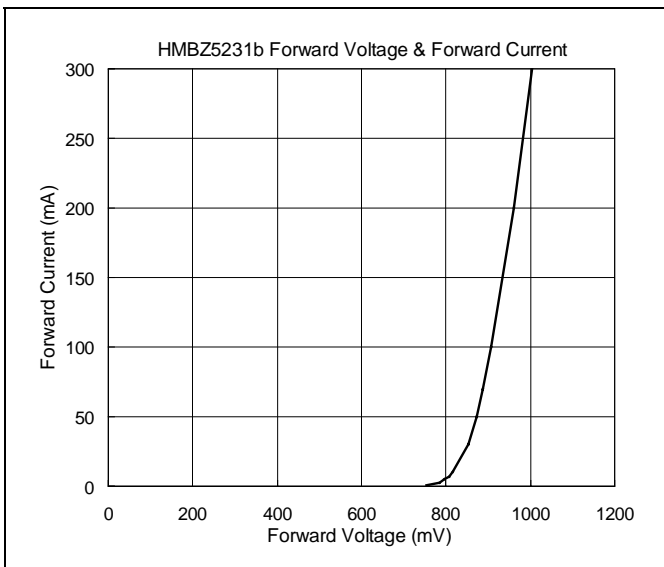
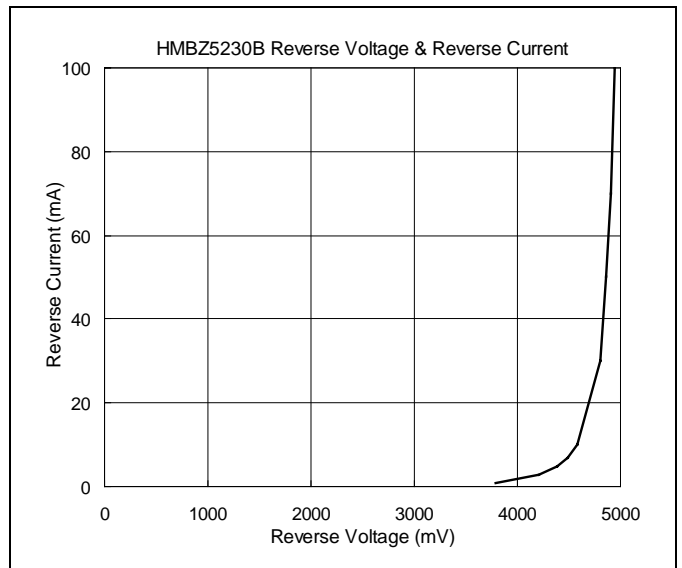
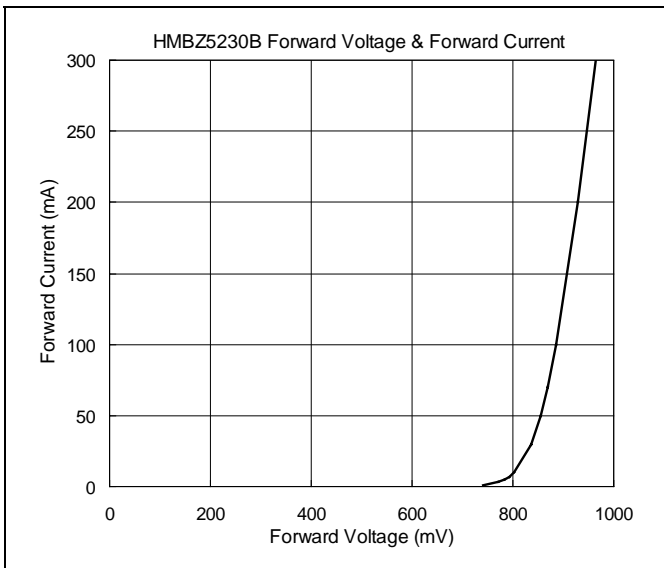
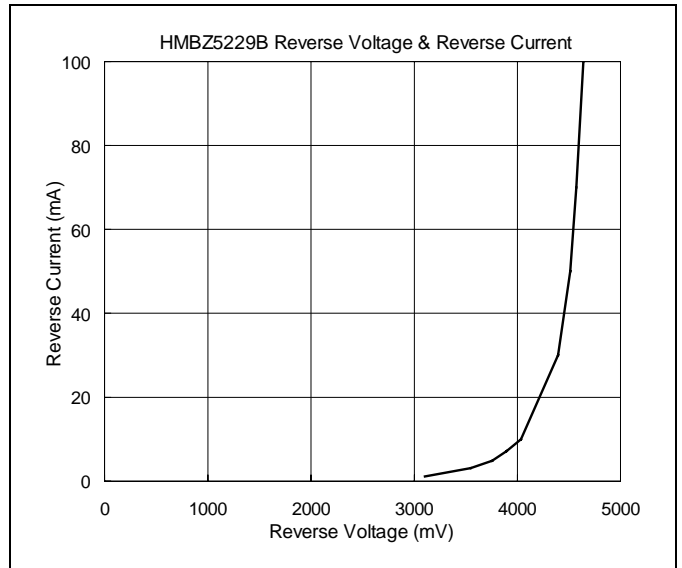
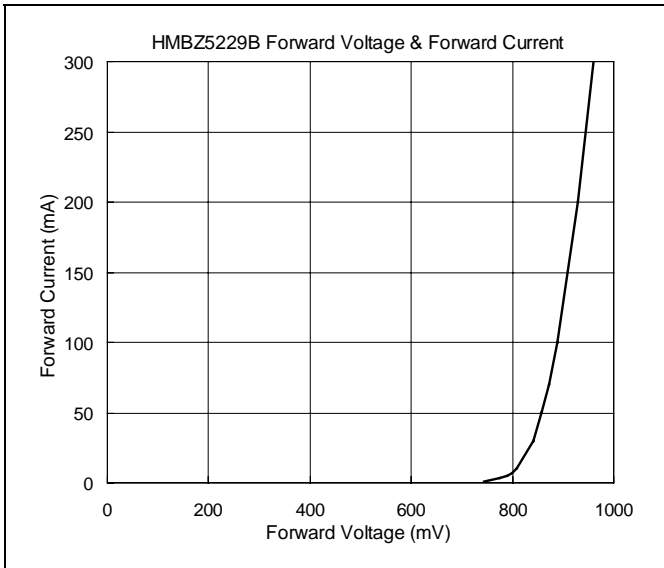


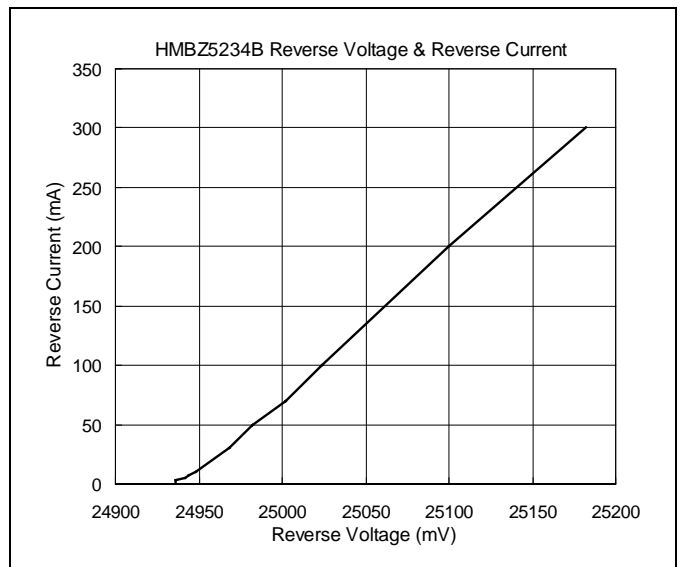
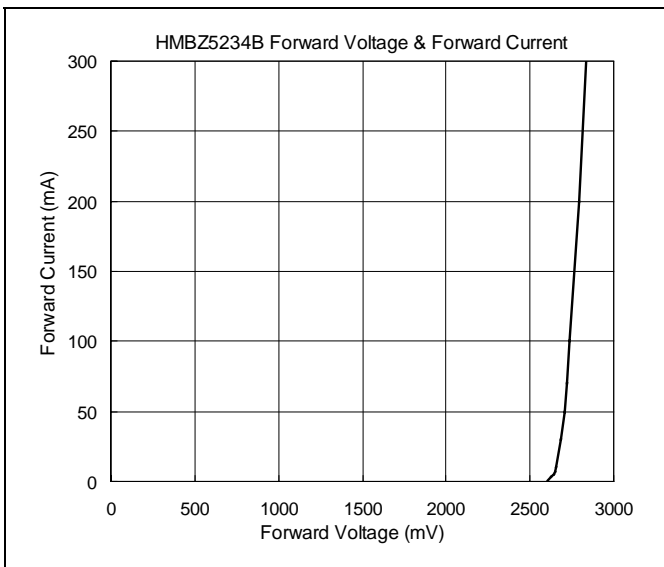
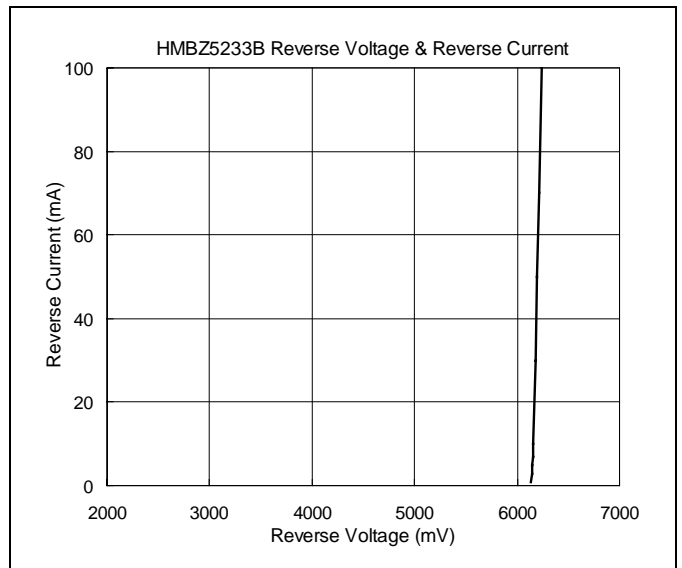
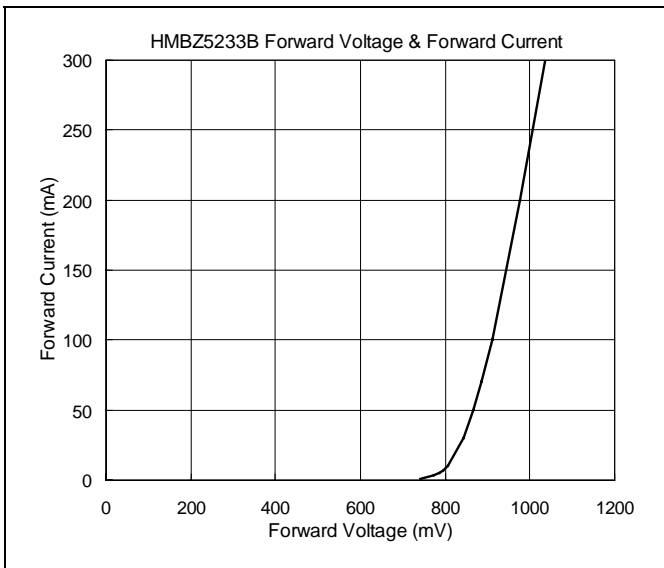
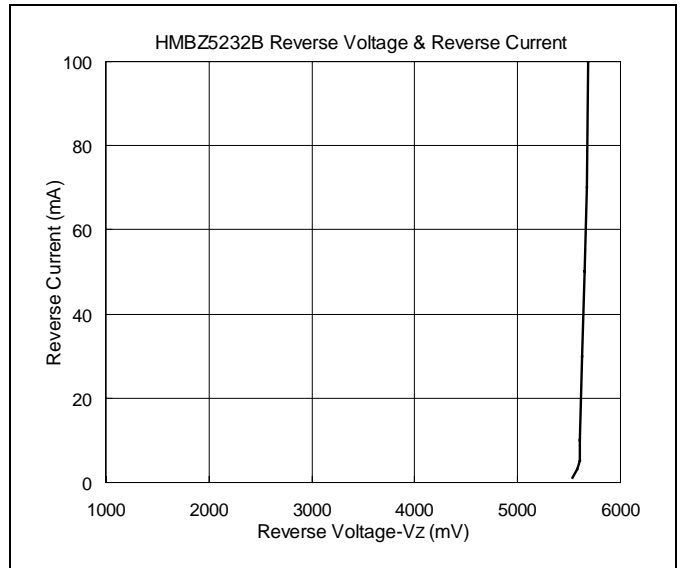
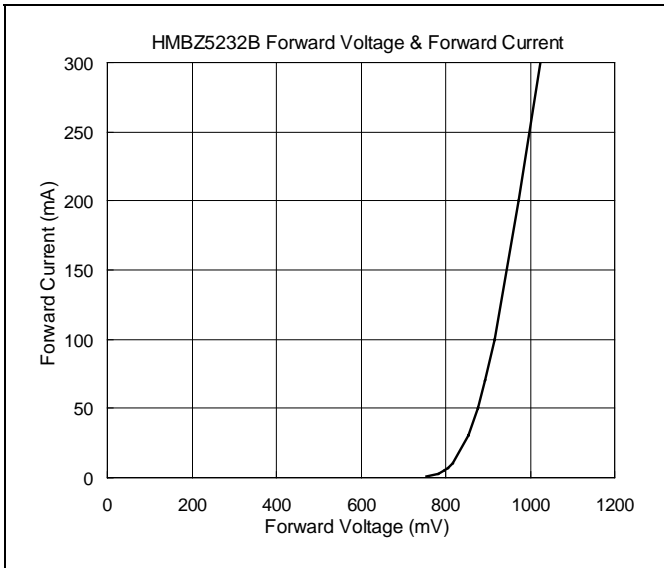
HMBZ5245B	8V	8.5	15 ±5%	600	16	0.1	11
HMBZ5246B	8W	7.8	16 ±5%	600	17	0.1	12
HMBZ5247B	8X	7.4	17 ±5%	600	19	0.1	13
HMBZ5248B	8Y	7.0	18 ±5%	600	21	0.1	14
HMBZ5249B	8Z	6.6	19 ±5%	600	23	0.1	14
HMBZ5250B	81A	6.2	20 ±5%	600	25	0.1	15
HMBZ5251B	81B	5.6	22 ±5%	600	29	0.1	17
HMBZ5252B	81C	5.2	24 ±5%	600	33	0.1	18
HMBZ5253B	81D	5.0	25 ±5%	600	35	0.1	19
HMBZ5254B	81E	4.6	27 ±5%	600	41	0.1	21
HMBZ5255B	81F	4.5	28 ±5%	600	44	0.1	21
HMBZ5256B	81G	4.2	30 ±5%	600	49	0.1	23
HMBZ5257B	81H	3.8	33 ±5%	700	58	0.1	25

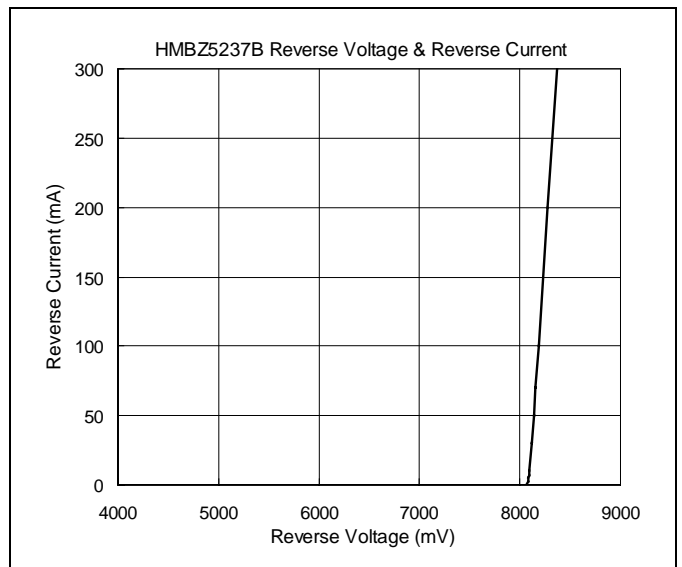
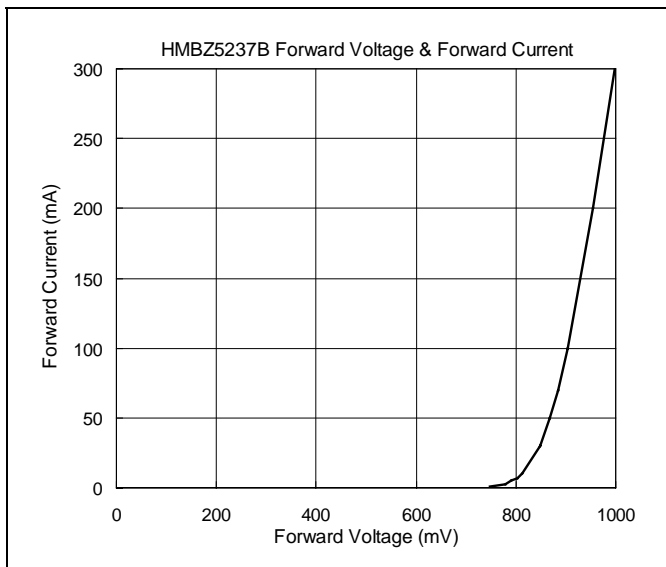
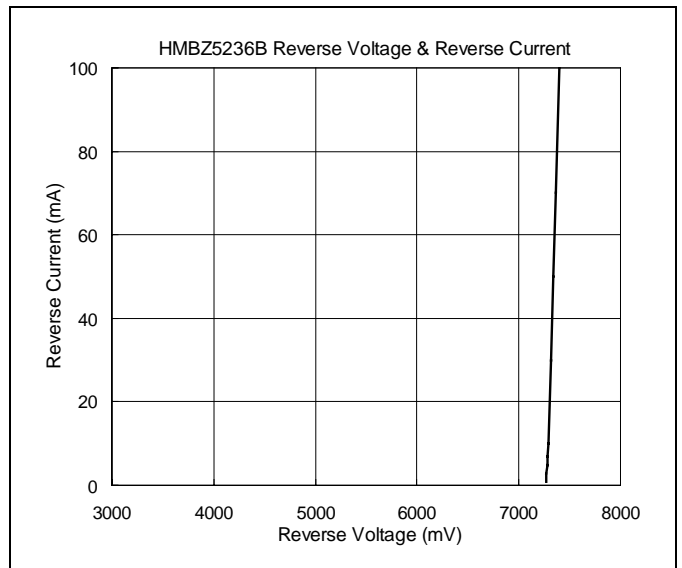
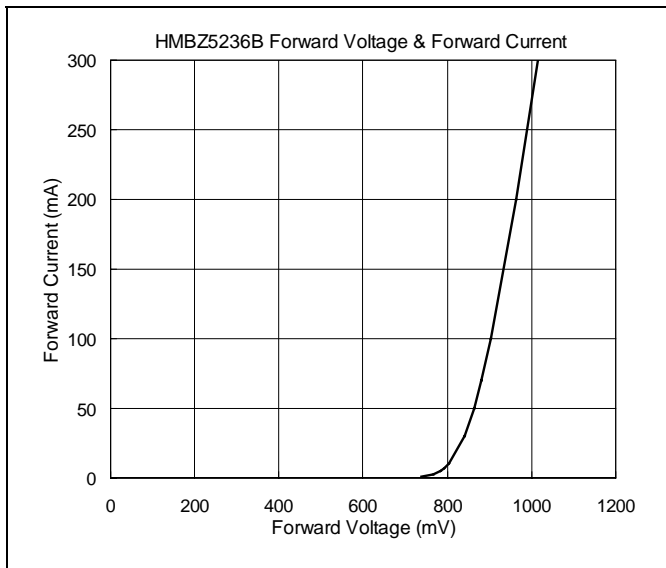
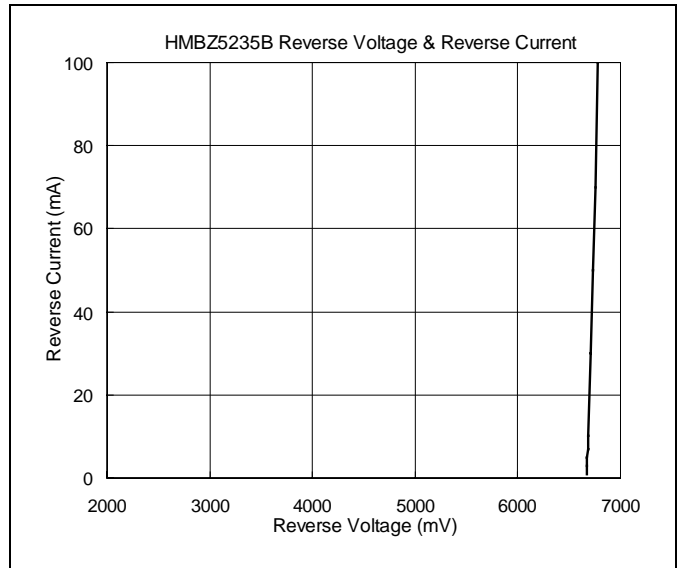
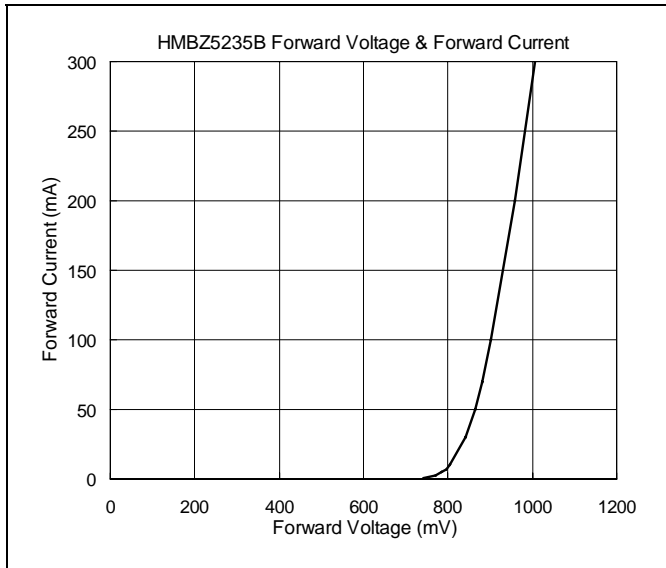
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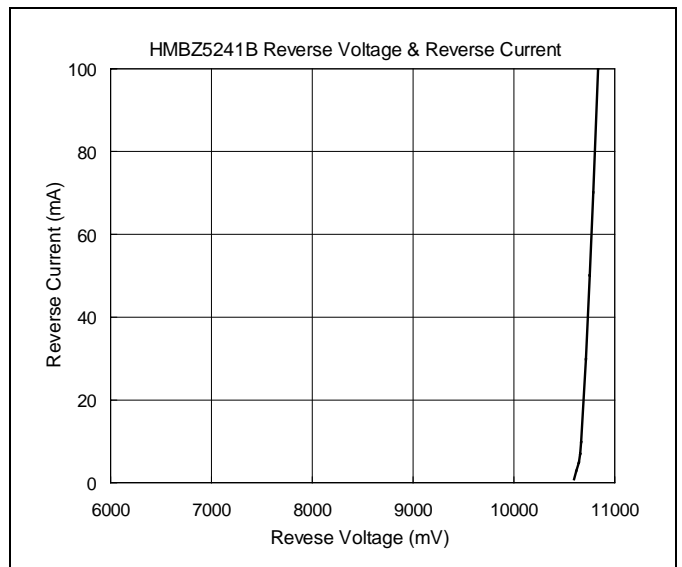
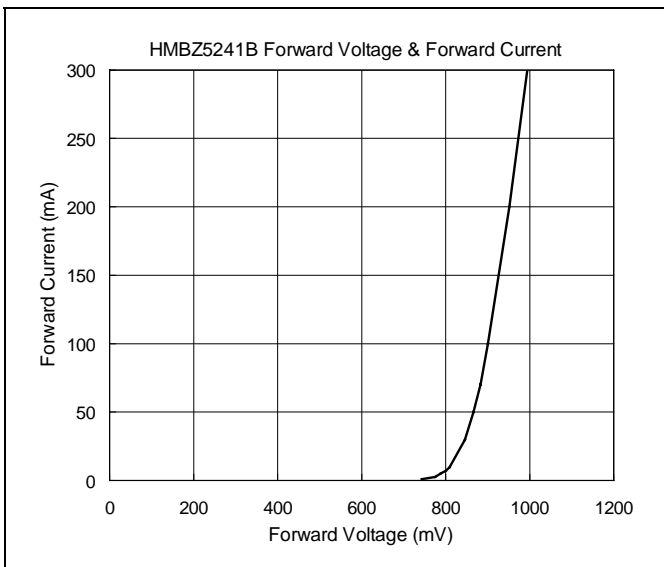
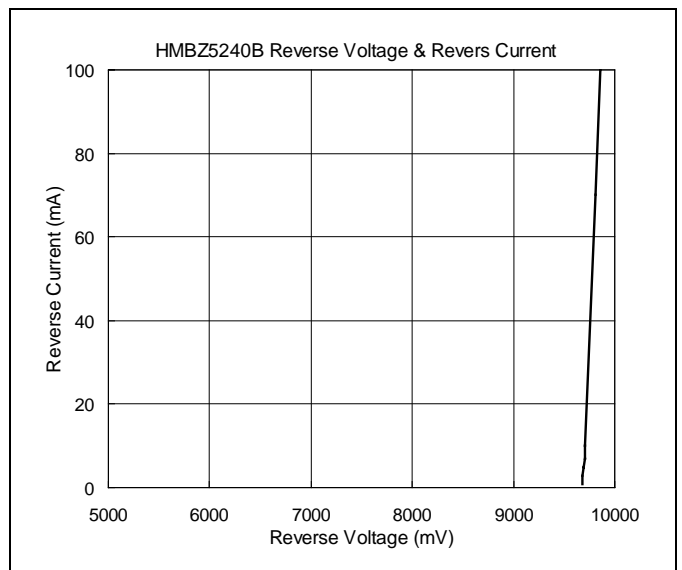
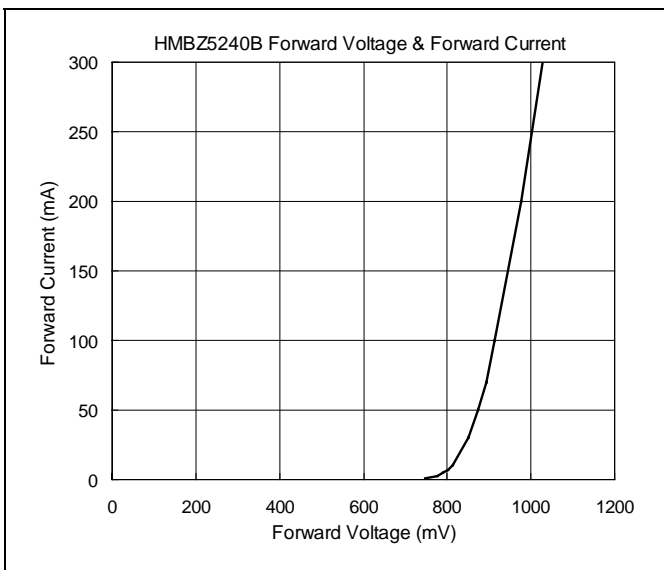
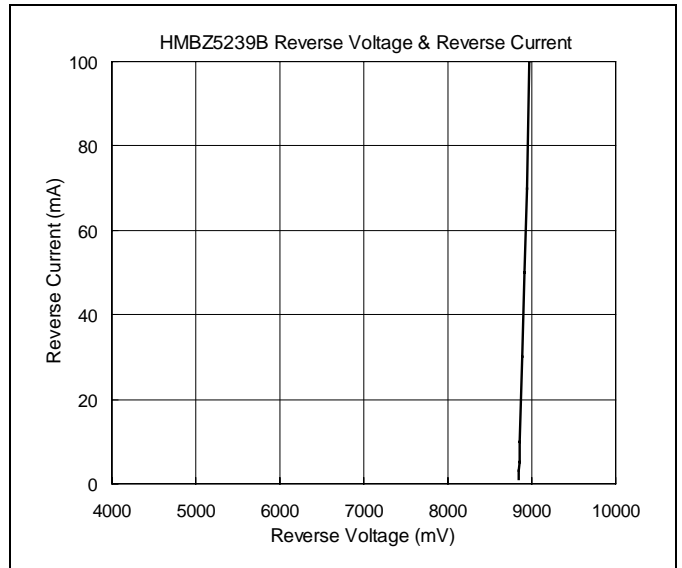
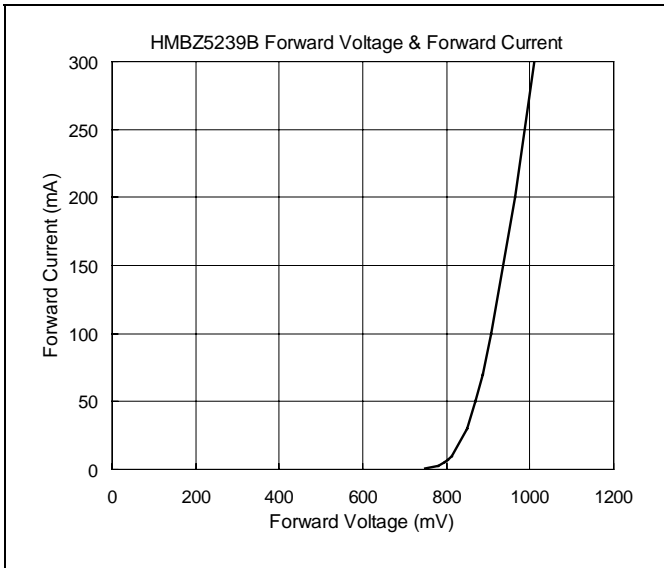


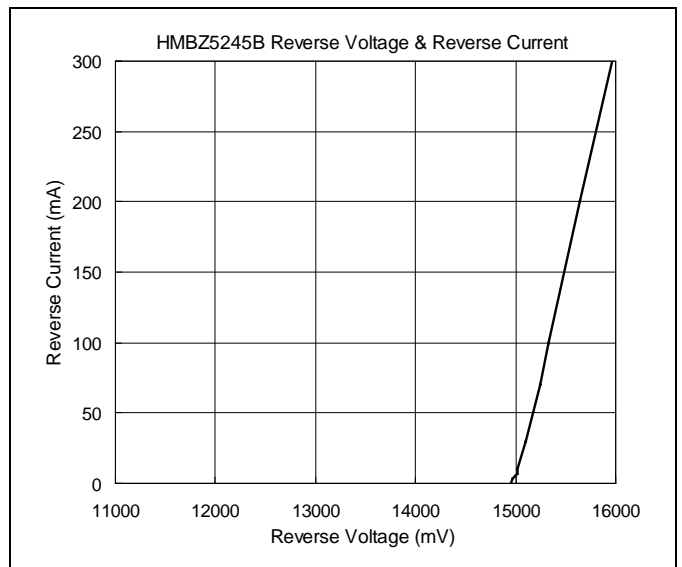
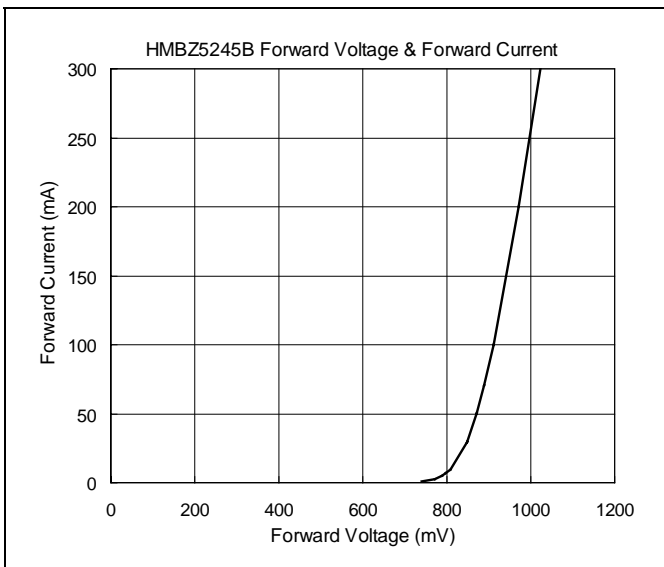
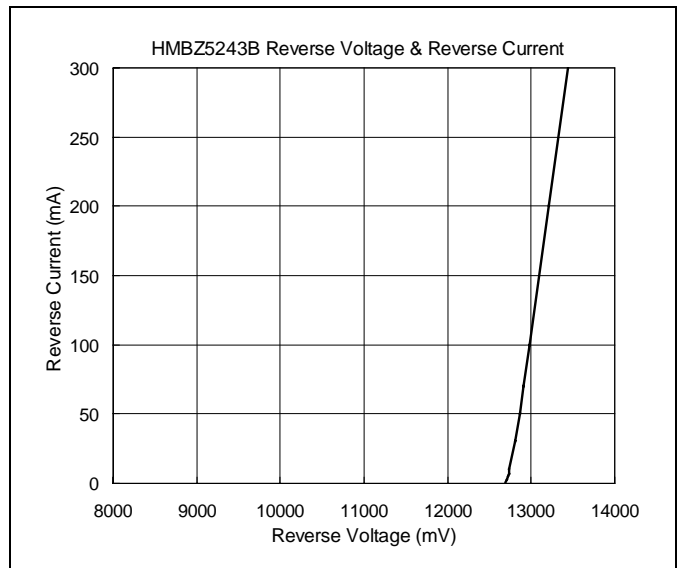
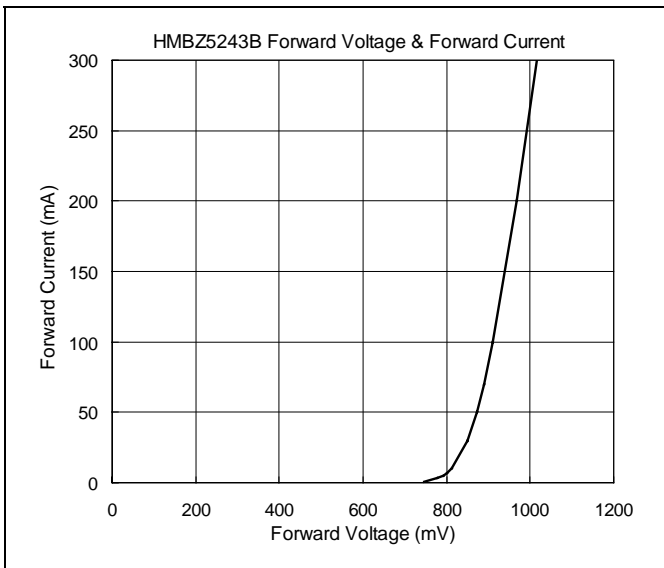
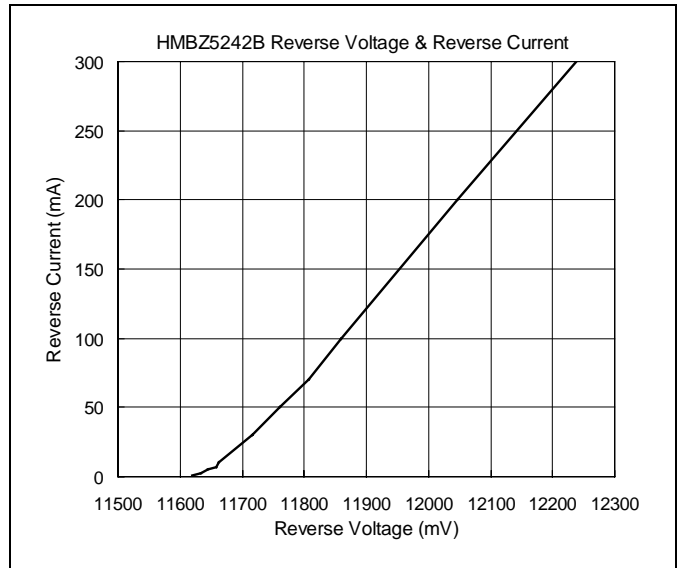
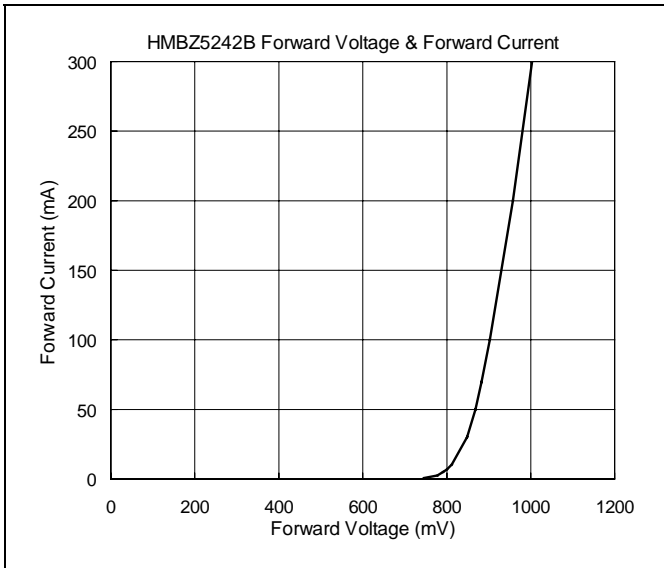




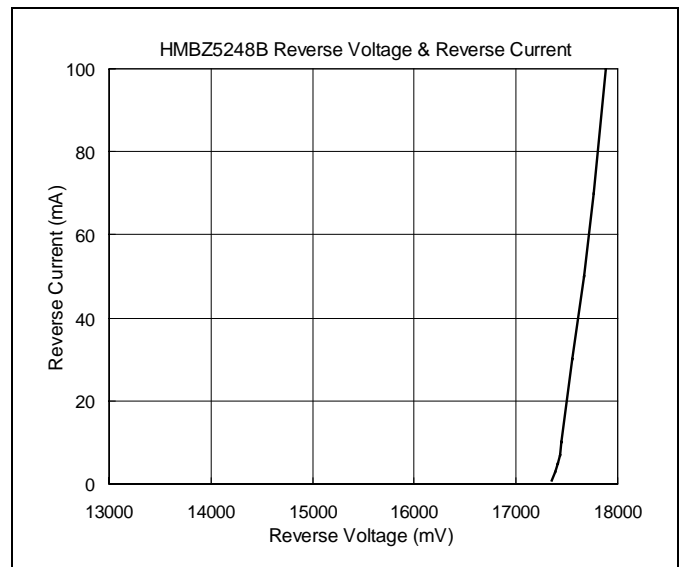
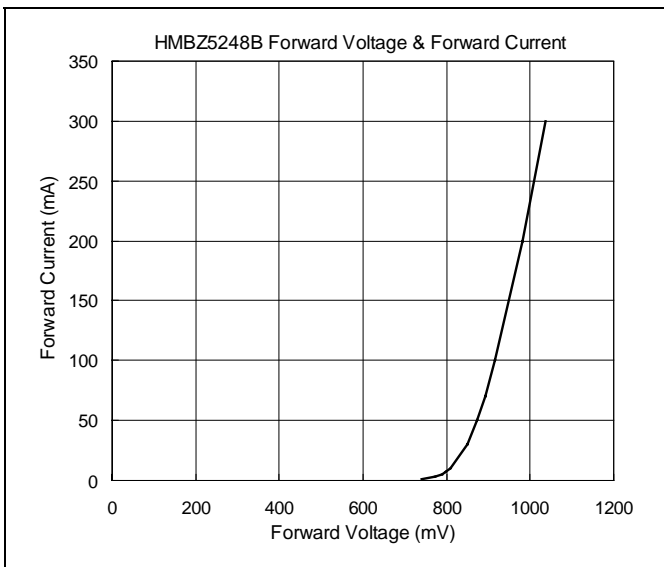
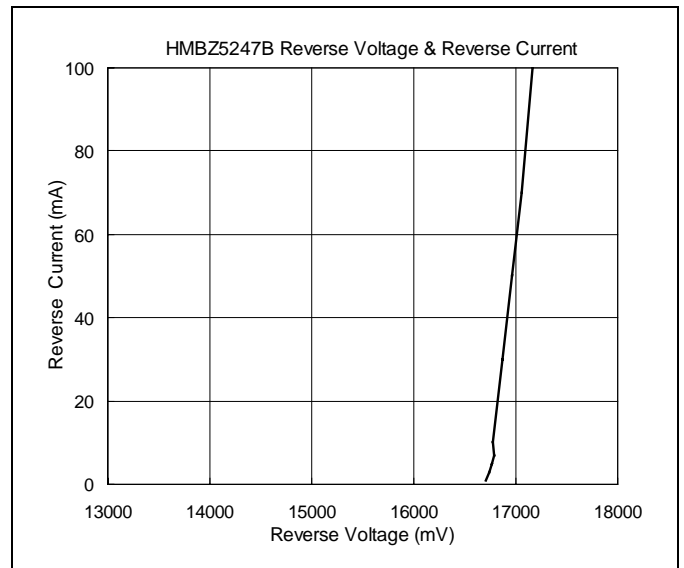
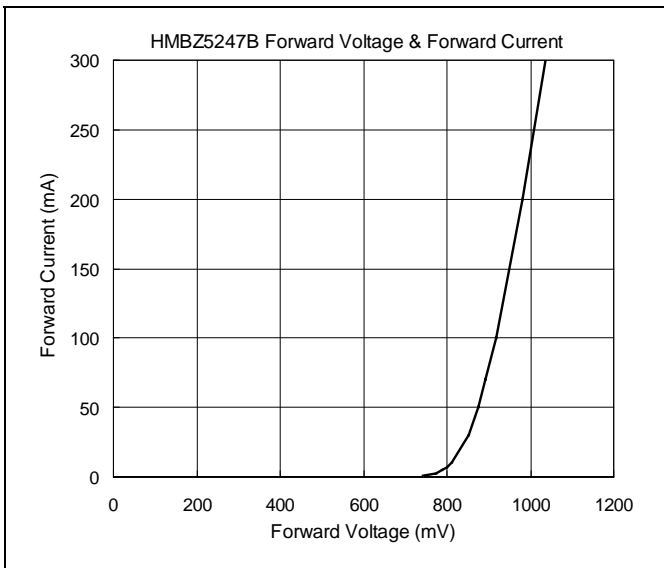
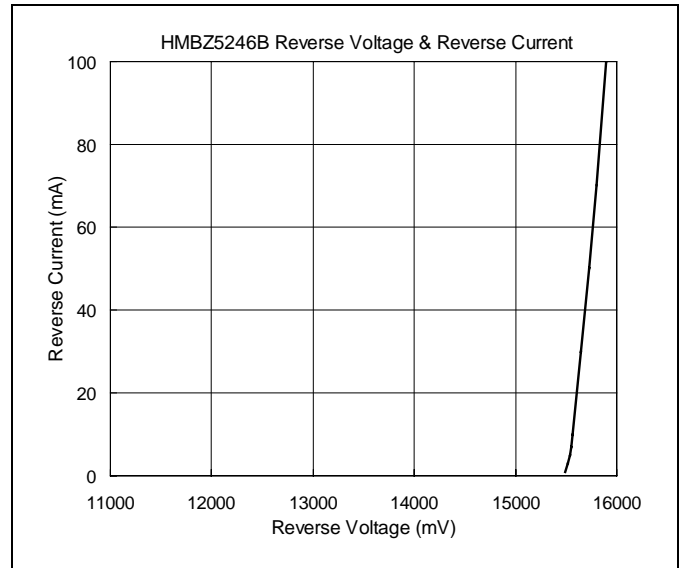
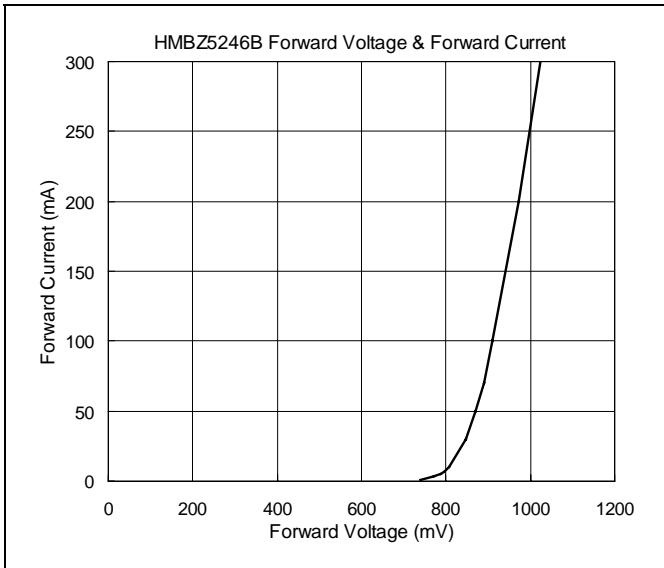


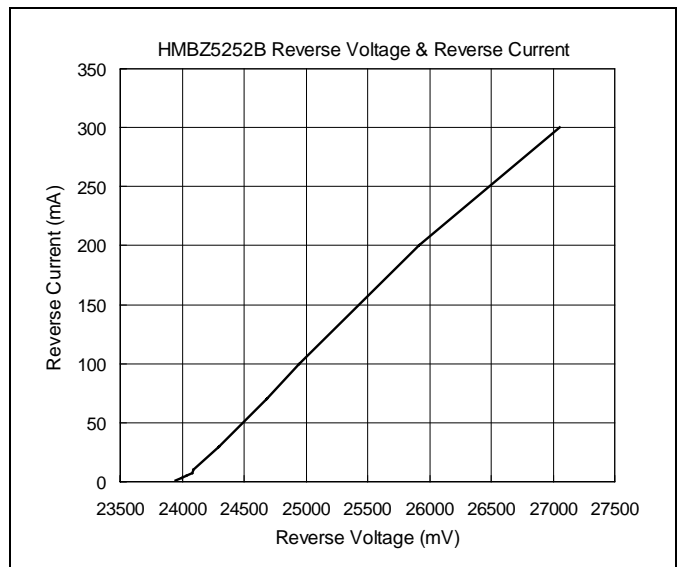
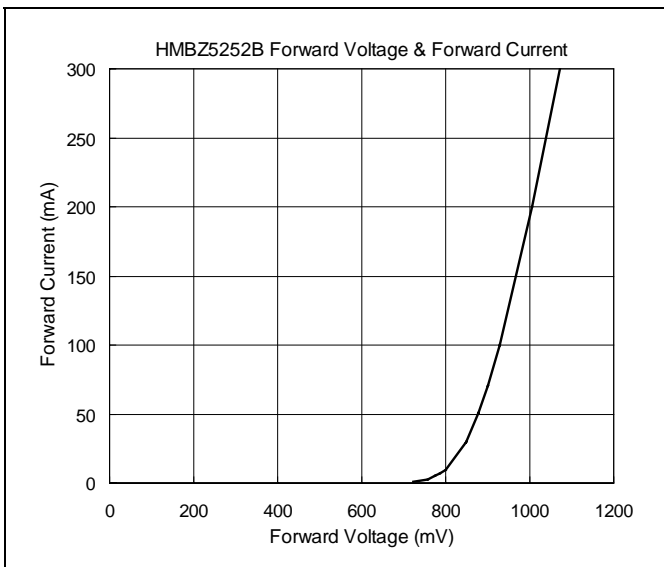
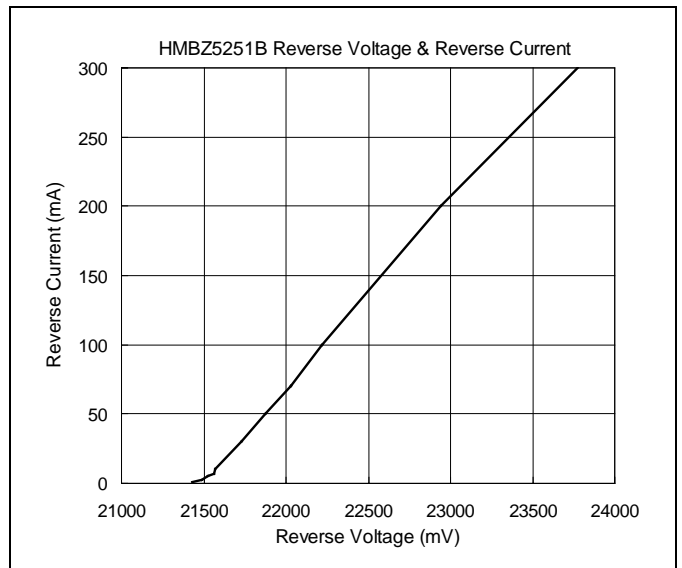
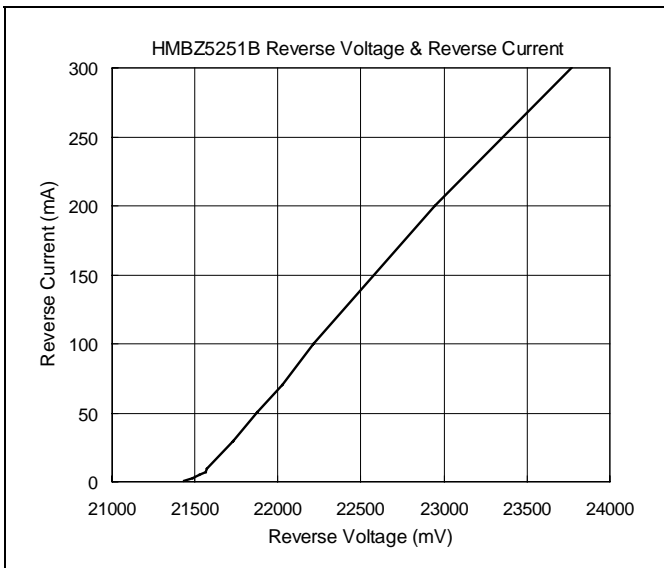
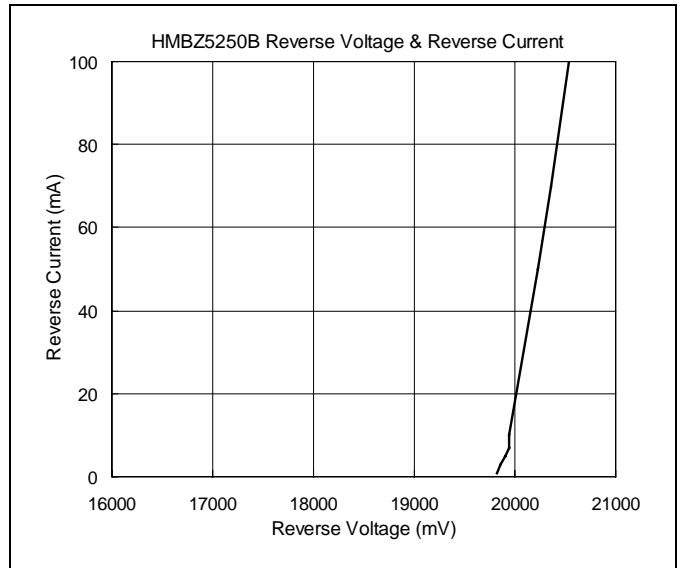
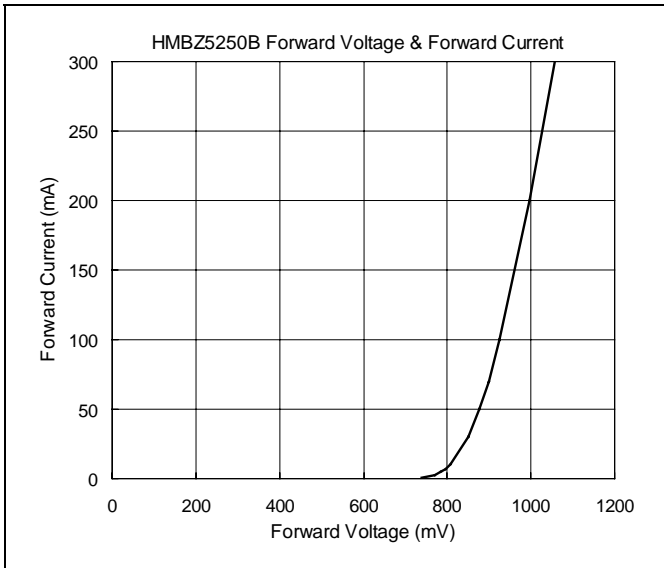


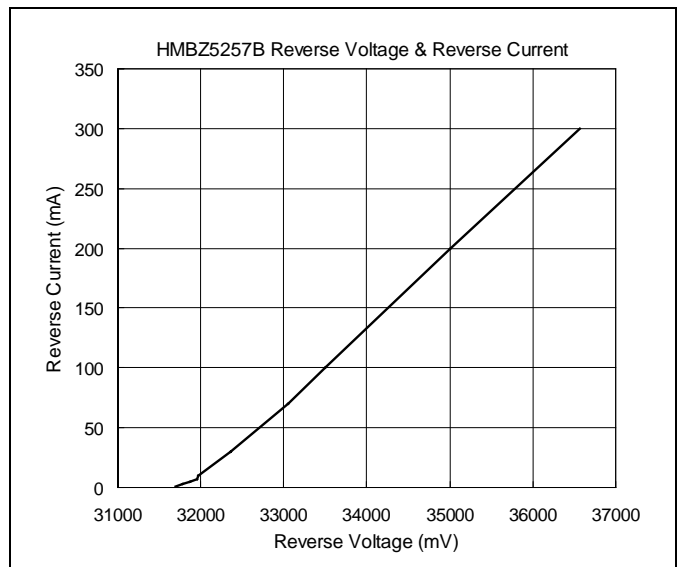
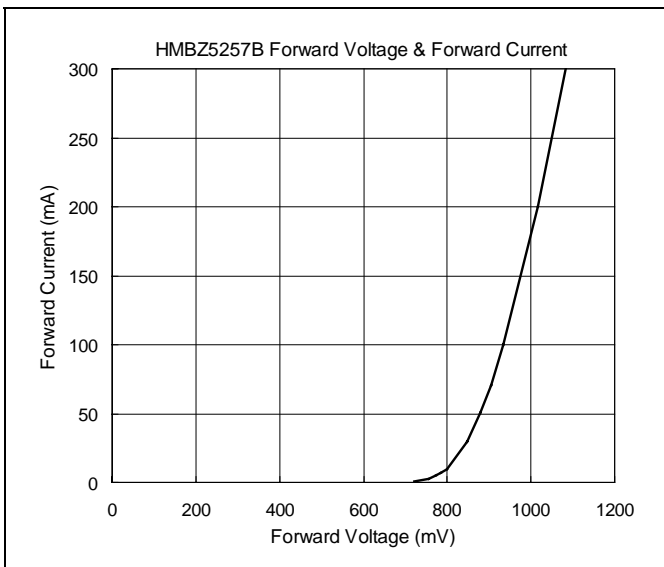
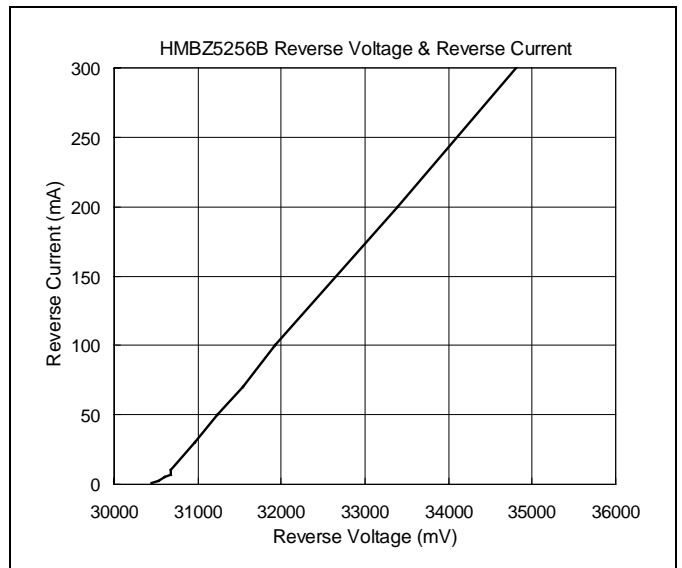
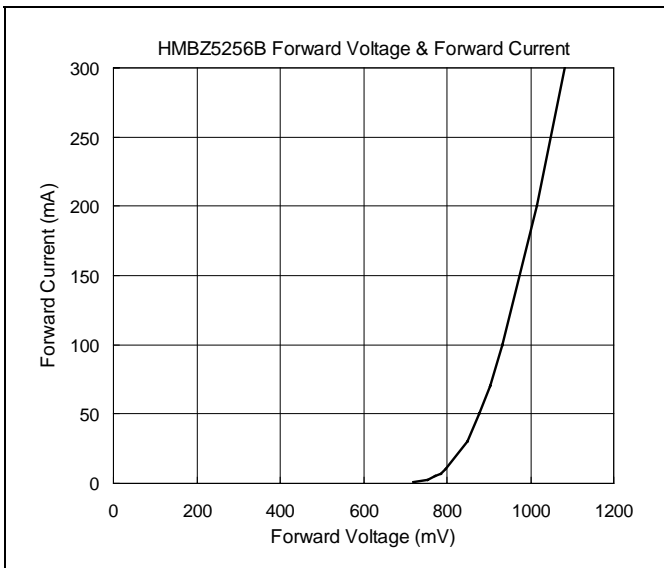
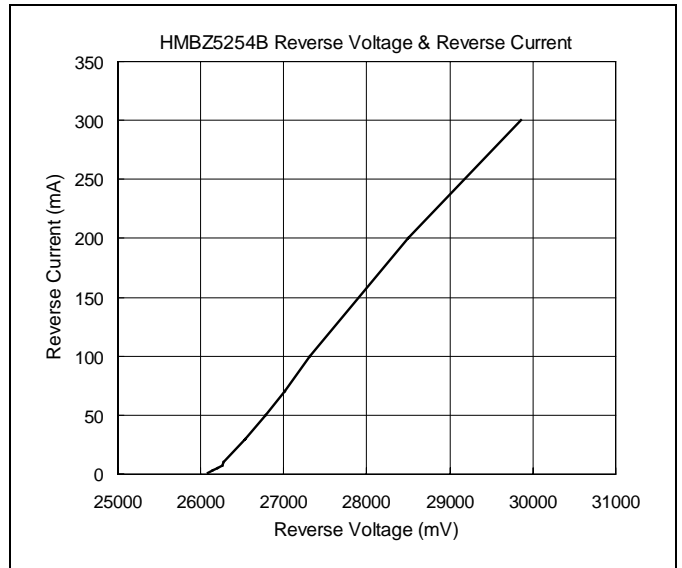
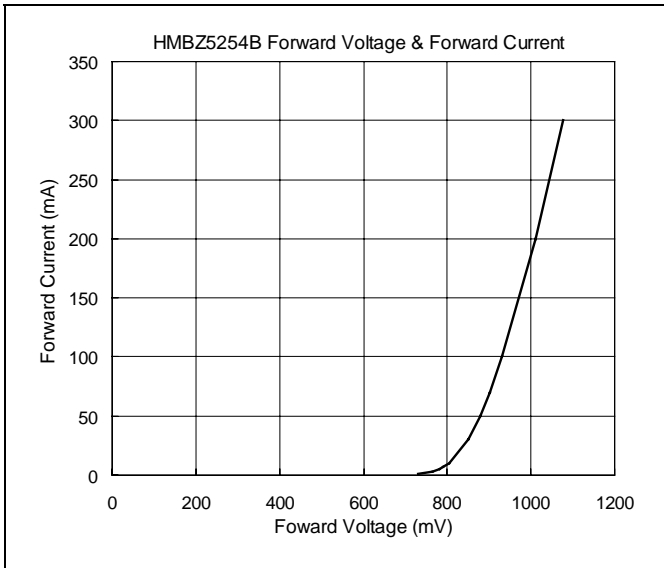






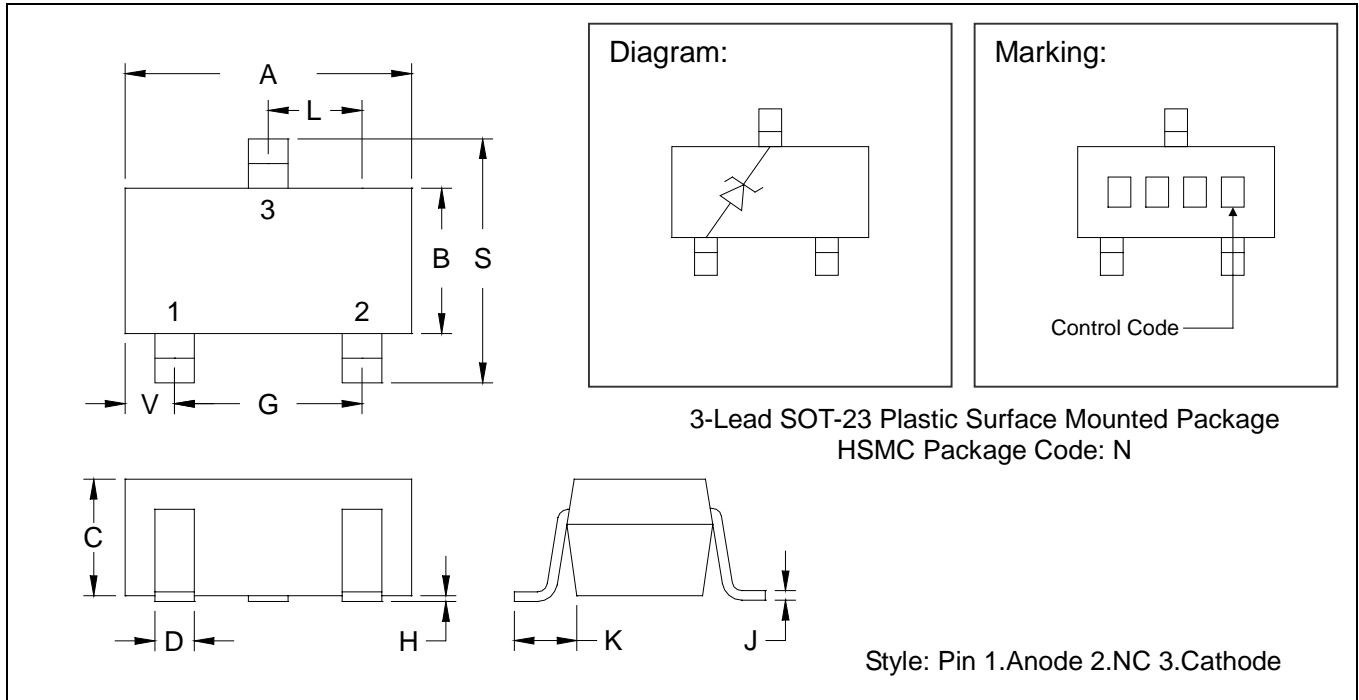








### SOT-23 Dimension



\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.1204	2.80	3.04	J	0.0034	0.0070	0.085	0.177
B	0.0472	0.0630	1.20	1.60	K	0.0128	0.0266	0.32	0.67
C	0.0335	0.0512	0.89	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1083	2.10	2.75
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	0.0005	0.0040	0.013	0.10					

- Notes: 1.Dimension and tolerance based on our Spec. dated Sep. 07,1997.  
 2.Controlling dimension: millimeters.  
 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.  
 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

**Material:**

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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 Tel: 886-3-5983621~5 Fax: 886-3-5982931